

### **Abstract of the Disclosure**

A behavioral adaptation engine integrated with a voice application creation and deployment system has at least one data input port for receiving XML-based client interaction data including audio files attached to the data; at least one data port for sending data to and receiving data from external data systems and modules; a logic processing component including an XML reader, voice player, and analyzer for processing received data; and a decision logic component for processing result data against one or more constraints. The engine intercepts client data including dialog from client interaction with a served voice application in real time and processes the received data for behavioral patterns and if attached, voice characteristics of the audio files whereupon the engine according to the results and one or more valid constraints identifies one or a set of possible enterprise responses for return to the client during interaction.